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## (54) WAVELENGTH CHANGING GLASS MATERIAL

### (57)Abstract:

PURPOSE: To control the emission intensities of green light and red light without varying the compsn. of the host material of a wavelength changing glass material.

CONSTITUTION: Er ions and Tm ions are added to an IR transmitting glass material. The amts. of these rare earth metal ions added are regulated to  $\leq 10\text{mol}\%$  each basing on the amt. of cations in the host glass material. A green to red upconversion fluorescent lamp can be obtd. by varying the ratio between Er ions and Tm ions added.

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